

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing Of Claims:

1. **(Currently Amended)** Method of selecting a proxy cache, said method comprising the steps of:

defining a plurality of proxy caches into which a URL ~~may be~~ is capable of being hashed;

~~identifying a candidate set of proxy caches for a given URL based on information related to said URL; and~~

hashing the URL into an anchor hash partition in a hashing space;

forming a candidate set of hash partitions by including one or more nearby partitions in the hashing space into said anchor hash partition;

mapping each partition to a proxy cache; and

selecting a proxy cache from the candidate set at least on the basis of latency.

2. **(Original)** The method according to Claim 1, wherein said selecting step comprises selecting a proxy cache from the candidate set at least on the basis of latency and load condition.

3. **(Cancelled)**

4. **(Currently Amended)** ~~The method according to Claim 1, wherein said identifying step comprises~~ Method of selecting a proxy cache, said method comprising the steps of:

defining a plurality of proxy caches into which a URL is capable of being hashed;

creating an indirect mapping of hash partitions to a proxy ID array;

hashing the URL into an anchor hash partition in a hashing space;

finding the corresponding anchor proxy cache; ~~and~~

forming a candidate set of proxy caches by including one or more nearby proxy caches from the proxy ID array into the anchor proxy cache; and

selecting a proxy cache from the candidate set at least on the basis of latency.

5. **(Original)** The method according to Claim 1, wherein said selecting step comprises selecting a proxy cache from the candidate set of proxies based at least on minimum response time.

6. **(Original)** The method according to Claim 1, wherein said selecting step comprises selecting a proxy cache from the candidate set of proxies based at least on discounted response time that prefers the anchor proxy cache unless the response time is better by a predetermined amount.

7. **(Original)** The method according to Claim 1, wherein said selecting step comprises selecting a proxy cache from the candidate set of proxies based at least on the condition that a proxy cache server is not overloaded.

8. **(Original)** The method according to Claim 3, wherein the nearby partitions comprise partitions with hash values greater than that of the anchor partition.

9. **(Original)** The method according to Claim 3, wherein the nearby partitions comprise partitions with hash values less than that of the anchor partition.

10. **(Original)** The method according to Claim 3, wherein the nearby partitions comprise partitions with hash values both greater and less than that of the anchor partition.

11. **(Original)** The method according to Claim 3, wherein said mapping step comprises hashing each hash partition into a number between 1 and P , wherein P represents the total number of proxies.

12. **(Original)** The method according to Claim 3, wherein said mapping step further comprises:

for each proxy, generating N/P random numbers between 0 and 1, wherein N represents the total number of hash partitions and P represents the total number of proxies;

generating a proxy list by sorting the corresponding N random numbers generated;
and

assigning each hash partition to one proxy based on the sorted proxy list.

13. **(Original)** The method according to Claim 4, wherein the step of creating an indirect mapping of hash partitions to a proxy ID array further comprises:

forming a proxy ID array with collaborative proxy caches;

creating a hash partition segment that maps each hash partition to the index of the proxy ID array; and

replicating the hash partition segment for a predetermined number of times.

14. **(Currently Amended)** System for selecting a proxy cache, said system comprising:

defining a plurality of proxy caches into which a URL ~~may be~~ is capable of being hashed;

~~an identifier for identifying a candidate set of proxy caches for a given URL based on information related to said URL; and~~

an identifier adapted to:

hash the URL into an anchor hash partition in a hashing space;

form a candidate set of hash partitions by including one or more nearby partitions in the hashing space into said anchor hash partition; and

map each partition to a proxy cache; and

a selector for selecting a proxy cache from the candidate set at least on the basis of latency.

15. **(Original)** The system according to Claim 14, wherein said selector is adapted to select a proxy cache from the candidate set at least on the basis of latency and load condition.

16. **(Cancelled)**

17. **(Currently Amended)** The system according to Claim 14, wherein said identifier is further adapted to:

create an indirect mapping of hash partitions to a proxy ID array;

hash the URL into an anchor hash partition;

find the corresponding anchor proxy cache; and

form a candidate set of proxy caches by including one or more nearby proxy caches from the proxy ID array into the anchor proxy cache.

18. **(Original)** The system according to Claim 14, wherein said selector is adapted to select a proxy cache from the candidate set of proxies based at least on minimum response time.

19. **(Original)** The system according to Claim 14, wherein said selector is adapted to select a proxy cache from the candidate set of proxies based at least on discounted response time that prefers the anchor proxy cache unless the response time is better by a predetermined amount.

20. **(Original)** The system according to Claim 14, wherein said selector is adapted to select a proxy cache from the candidate set of proxies based at least on the condition that a proxy cache server is not overloaded.

21. **(Currently Amended)** The system according to Claim ~~14~~14, wherein the nearby partitions comprise partitions with hash values greater than that of the anchor partition.

22. **(Currently Amended)** The system according to Claim ~~14~~14, wherein the nearby partitions comprise partitions with hash values less than that of the anchor partition.

23. **(Currently Amended)** The system according to Claim ~~14~~14, wherein the nearby partitions comprise partitions with hash values both greater and less than that of the anchor partition.

24. **(Currently Amended)** The system according to Claim ~~14~~14, wherein said identifier is adapted to map each hash partition into a number between 1 and P , wherein P represents the total number of proxies.

25. **(Currently Amended)** The system according to Claim ~~14~~14, wherein said

identifier, in mapping, is adapted to:

for each proxy, generate N/P random numbers between 0 and 1, wherein N represents the total number of hash partitions and P represents the total number of proxies;

generate a proxy list by sorting the corresponding N random numbers generated;

and

assign each hash partition to one proxy based on the sorted proxy list.

26. **(Original)** The system according to Claim 17, wherein said identifier, in creating an indirect mapping, of hash partitions to a proxy ID array, is adapted to:

form a proxy ID array with collaborative proxy caches;

create a hash partition segment that maps each hash partition to the index of the proxy ID array; and

replicate the hash partition segment for a predetermined number of times.

27. **(Currently Amended)** A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for selecting a proxy cache, said method steps comprising:

defining a plurality of proxy caches into which a URL ~~may be~~ is capable of being hashed;

~~identifying a candidate set of proxy caches for a given URL based on information~~
related to said URL; and

hashing the URL into an anchor hash partition in a hashing space;

forming a candidate set of hash partitions by including one or more nearby
partitions in the hashing space into said anchor hash partition;

mapping each partition to a proxy cache; and

selecting a proxy cache from the candidate set at least on the basis of latency.